

Mr. Landry's 8th Grade Science: Syllabus

(Updated 9.13.16)

Welcome to Mr. Landry's class. This will be a class far different than any class you have ever had before. My class is a book-free, flipped classroom using inquiry-based instruction with standards-based grading. This means that instead of using books in class to learn from, you will be doing your notes using technology and exploring the concepts and theories through labs, activities, as performance assessments.

This class will require you to be responsible for your own learning, and it will require you to be a true scientist. You are responsible to have your notes and your lab binder with you every day. The class policy is Be Prepared, Be Respectful, & Work Hard. If you can do these three things, you will be successful in class.

This class syllabus will help guide you through the year in my class. For those of you who don't know what a syllabus is, it is an outline of the subjects in a course of study as well as an explanation of how the class is organized and assessed. That means this document will tell you what you can expect from my class. Always have this syllabus with you, you never know when you will need it.



Be prepared.

Bring your Science binder with you to class everyday. You will need this to store your Interactive Science Notebook (ISN), important documents for class, and projects or labs that don't go in your ISN. Your binder will be divided in to 2 sections: *Projects* and *Assignments*. Your *Projects* section is for projects and performance assessments that will be done at the end of units in class. This will be important to help you stay organized while you do these activities. Your *Assignments* section is where you will keep any assignments that did not go in your ISN which may have been graded and handed back to you. You will keep all work to help you study for unit exams and performance assessments. **Good students are organized and prepared.**

Do your homework and classwork thoroughly and on time. Homework assignments are note taking assignments, watching videos, listening to podcasts, and reading science articles. A video lecture is what you will use to take your notes. The videos, articles, and podcasts will have worksheets to answer questions or take notes with. Every part of classwork assignments should be neat, and every part should show evidence of sincere effort. If an assignment is not completed on time, Mr. Landry will make arrangements with the student to complete it, usually before school.

Interactive Science Notebooks. This year, students will be keeping an Interactive Science Notebook (ISN). Students will do everything in this notebook, and use this notebook every day in class. There is no need to worry about getting this for your student, it will be supplied in class. The purpose of the interactive notebook is to enable students to be creative, independent thinkers and writers. Interactive notebooks are used for class notes as well as for other activities where the student will be asked to express his/her own ideas and process the information presented in class. Mr. Landry will even do one to help students learn how to use it, as well as to help students stay organized and ready for class.

This is something that parents should look at each night with their child. It will help parents know what is going on in class, as well as help to see how the child is doing in science class. This is a good way to see how much effort is going into class as well as to keep up with the current curriculum in science.

Required Materials: The following is a list of requirements to be successful in Mr. Landry's science class. These items should be available every day.

- Headphones or earbuds
- Access to internet
- Binder
- Colored pencils

Headphones or earbuds do not need to be fancy. A cheap pair at the dollar store or 5 below will do just fine. These are for video lectures and podcasts, which are homework assignments. For families who do not have internet access, there is a programs called Internet Essentials (<https://customer.xfinity.com/help-and-support/internet/comcast-broadband-opportunity-program/>) which will help families of low - income get internet access for very little money a month. The public library as well as the school library are also good resources for access to the internet.



Be Respectful

Participate in large group discussions. Take turns, offer help and encouraging words, listen to others, ask questions, and offer your own ideas at appropriate times. There is always opportunities to share your thoughts and ask questions when you are confused or if you just want to know more about the topic. **Participation is required in Mr. Landry's science class.**

Participate as a member of a small group or team. Make sure you understand your role as a team member and perform all tasks assigned to you in a cooperative manner. Each member of a group will be assigned roles that will help in exploring labs and activities as well as encourage safety and a clean work environment. Each table will have a Lead Scientist and a Technician. The Lead Scientist will lead the lab or the activity, make and record observations and data, and report to the teacher data recorded. The Technician will gather supplies needed, be the time keeper, and keep the table safe and clean for the activity or lab. Students are assigned to a table, but not to a chair. This means a student can choose each day which role they would like to have. But each role is on a first come - first serve, so get to the role you want first.

Classroom Disciplinary Procedure.

Class behavior issues will be dealt with through a *Chin Wag*. A chin wag is a British term meaning a chat or discussion. Any disruptions or behavior issues will be dealt with as a class through discussion. It is important to allow students to express how they feel about what is going on and to allow the offending student the opportunity to defend their actions. Any discipline issues that cannot be resolved this way will result in calls home to parents as well as notices sent to the office.



Work Hard

Mr Landry's 8th Grade Science Class: Course Description

This course description is not in any particular order and may be taught in any order Mr. Landry finds necessary. Be sure to pay attention to class notes and topics to be sure which unit we are studying.

The Nature of Science

This unit covers the basics of measurement using SI standards, Scientific Method and Inquiry, and understanding technology and engineering design. Through activities and experiments, students will explore what it means to be a scientist and how to explore the world using technology.

Technology Project: Myth or Fact

In this unit, we will review how to think like a scientist by solving problems. The main activity at the end of this unit will be to choose a myth or superstition that you will either prove or disprove using the scientific method and proper experimentation skills.

Populations and Ecosystems

This unit explores the interactions between organisms, populations and ecosystems. Students will review what ecosystems are, energy pyramids and food chains and how populations rely on each other in an ecosystem.

Technology Project: Eco-design

This activity compliments the populations and Ecosystems unit. Teams of students are challenged to design a 3d ecosystem of their choice showing energy transfer and interaction between different populations.

Cells and Heredity

This unit uses microscopes and petri dishes to explore the world of cells. Students will learn about the parts of plants and animal cells as well as explore DNA and Heredity.

Technology Project: Making models

In this unit, we will review what we know of cells and what is inside them. Students will create accurate models of a plant and animal cell with labels.

From Bacteria to Plants

This unit reviews bacteria and classification. Students will focus most of the time on bacteria, and the differences and similarities between the bacterial cells and plant/animal cells. Students will also review the classification system used today.

Technology Project: Adopt a Disease

In this unit, we will what we have learned about bacteria and viruses. The main activity at the end of this unit will be to adopt a disease. Students will choose a disease caused either from a bacteria or virus and write a research paper about this disease.)

Technology/Engineering Unit

This unit explores the manufacturing process and how thing are made. Students will learn about tools, the design process, quality control and marketing.

Technology Project: Bat Houses

This activity will challenge students to work in teams to create a bat house. There will be blue prints to be read, designs to be followed, materials to be fabricated and assembled and a product to be sold. There will be power tools involved.

Grading Policy

The class will use a Standards-based grading system. This means that each class will have a Learning Goal that will be assessed tasks and activities. Not every class will be graded, but students will know every day how well they are meeting the goals of the class. The following table helps outline the strengths of using a Standards-based system versus the traditional system.

Traditional Grading System	Standards-Based Grading System
1. Based on assessment methods (quizzes, tests, homework, projects, etc.). One grade/entry is given per assessment.	1. Based on learning goals and performance standards. One grade/entry is given per learning goal.
2. Assessments are based on a percentage system. Criteria for success may be unclear.	2. Standards are criterion or proficiency-based. Criteria and targets are made available to students ahead of time.
3. Use an uncertain mix of assessment, achievement, effort, and behavior to determine the final grade. May use late penalties and extra credit.	3. Measures achievement only OR separates achievement from effort/behavior. No penalties or extra credit given.
4. Everything goes in the grade book – regardless of purpose.	4. Selected assessments (tests, quizzes, projects, etc.) are used for grading purposes.
5. Include every score, regardless of when it was collected. Assessments record the average – not the best – work.	5. Emphasize the most recent evidence of learning when grading.

Adapted from O'Connor K (2002). *How to Grade for Learning: Linking grades to standards (2nd ed.)*. Thousand Oaks, CA: Corwin Press.

Rather than giving students a grade for everything they do, the students will be given grades for assessments only, allowing other assignments and activities to allow students to explore content without stress or fear of failure. This does put the responsibility of the learning on the student, which requires effort from the students at all times.

The class will be scored on a 4 point system that will then be converted to a grade percentage. This scoring system is based on how well the student is able to meet the learning goal on their own. The learning goals are always posted clearly for students to see and reviewed each day. Students will also be filling out a Student Progress Chart each time they have an assessment so that they are aware of how well they are meeting the learning goal. The following table outlines the scoring system.

Score 4.0	More complex content
Score 3.5	In addition to score 3.0 performance, partial success at score 4.0 content
Score 3.0	Target learning goal
Score 2.5	No major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content
Score 2.0	Simpler content
Score 1.5	Partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content
Score 1.0	With help, partial success at score 2.0 content and score 3.0 content
Score 0.5	With help, partial success at score 2.0 content, but not at score 3.0 content
Score 0.0	Even with help, no success

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The ideal score is a 3.0. This tells the student they are able to meet the learning goal on their own and able to move on to more difficult content. A 2.0 shows that students may struggle on more difficult content, and a 4.0 shows students will be able to be very successful on more difficult content.

To

Scale Score	Percentage Score
4.0	100
3.5	95
3.0	90
2.5	80
2.0	70
1.5	65
1.0	60
Below 1.0	50

understand how that score relates to a percentage, the following table helps translate it:

The following assessments will be used for grading:

Performance Assessments: (40%) Checking your overall understanding of concepts, terms, and skills related to a general topic. These assessments usually require the student to demonstrate understanding through an activity, lab, or project. These are the only assessments which are independent, where there is no assistance from the teacher.

Interactive Science Notebooks: (30%) Organizational skills, Communication, and attention to detail, this is a valuable tool in class. Interactive Notebooks are the students research, analysis, and communication of what they have done in class. Without the notebook, the student will be lost in class.

Formal Lab Reports: (20%) Technical writing and diagramming skills. Attention to detail, sequences, and methodology; observation and expression of experiences. Labs helps students explore content that is reviewed in class. Labs are weekly, and often done in small groups or with a partner.

Assessments: (10%) Current progress toward understanding of specific skills, vocabulary, or concepts without assistance. Assessments usually come in the form of worksheets, Type 2 assignments, often times this is the easiest of the graded work.

Late Assignments

Lab assignments and homework can always be turned in late up to the end of the current quarter. Work missed due to absence, excused or unexcused must be made up. Missing assignments will not be given a grade, as they can't help assess how well as student is meeting the learning goal. Missing assignments will prevent students from learning the content in class, practicing difficult concepts, and usually result in not meeting the learning goal and failing the class.

All missing assignments will require a Missing Assignment Slip filled out and attached it for it to be graded. Any assignments without the slip will not be graded and handed back to students.



It is the student's responsibility to missed. If you anticipate difficulty please make arrangements with Mr. Landry in advance to assist you in working out a mutually agreeable timetable. Note that disciplinary consequences may be involved with late, unacceptable, or uncompleted work.

get the information and assignments managing your time and assignments,

You should be committed to yourself in progressing educational goals and personal improvement and committed to others and the learning environment.

Test and Quiz Make - Ups

Tests or quizzes that need to be redone will use the *Test/Quiz Make – Up Worksheet*, which will be stapled to the assignment to be submitted for reassessment. Any tests or quizzes turned in without a Make – Up worksheet, or any Make – Up worksheet turned in without the assignment will not be assessed or graded.

Technology Assistance

Grades and assignments can be checked on-line at x2.fitchburgschools.org. Students have an account to see their grades and assignments. Parents should contact the school secretary for an account. This grade book will be updated on a weekly basis, and will be the primary grade book in Mr. Landry's class. Because of the ease of use, there should be no need to be unaware of your grade or your progress in Mr. Landry's class.

Homework, classwork, notes and assignments can be viewed and downloaded at Mr. Landry's class Site – landryscience.wikispaces.com. At this website, you can find the news for the week, homework and assignments listed with due dates, and any worksheets or notes given out in class ready to download. Students can also find podcasts of the notes and helpful websites to find more information. All documents are in PDF format, you will need Adobe Acrobat Reader to see them. This is free software and can be found at adobe.com.



Students will also be given a
to digitally sign in to class for attendance,
to class. It will be used every day in class, including on days when Mr. Landry is out.

Science Badge, which they will use
keeping them accountable for being on time

Students are required by school administration to read and sign a technology agreement form to use school technology. This form is usually due by Winter Break, so be sure to bring it in.

Mr. Landry can be contacted any time during the school day or through email:
landryc@fitchburg.k12.ma.us.

Grade 8 Science Syllabus

Acceptance and Understanding

Please sign below to show that you accept and understand the expectations of Mr. Landry's class. A parent or guardian should also sign this to show that someone at home is also aware of what your expectations are in Mr. Landry's class.

Signing this syllabus states that you have read through the syllabus, and accept and understand all expectations of Mr. Landry's class. Mr. Landry will keep this on file for future use when needed.

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Student Signature

Date:

Parent / Guardian Signature

Date: